

COMMENTS ON THE TAXONOMIC STATUS OF *CYRTODACTYLUS ABRAE* WELLS 2002. *Memoirs of the Queensland Museum* 49(2): 648, 2004:- Wells & Wellington (1983, 1985) considered Australian populations of *Cyrtodactylus louisiadensis* to be distinct from the Louisiade Archipelago population described by De Vis, 1892. Accordingly, they resurrected from synonymy the specific name *tuberculatus* Lucas & Frost, 1900 (originally combined with *Hoplodactylus*) that had been applied to specimens collected from the Endeavour River, although they failed to provide any morphological definition or diagnosis for the species. Wells (2002) further split Australian *C. louisiadensis* populations, recognising *C. tuberculatus* as an inhabitant of 'dry sclerophyll forest' while *C. abrae* sp. nov. was said to occur in 'lowland tropical rainforest'. It is found as 'an apparently isolated population in the mountain ranges near Princess Charlotte Bay of far northern Cape York Peninsula' while *C. tuberculatus* has a distribution extending from 'about the Atherton Tablelands to the Cooktown district, on southern Cape York Peninsula'. The type locality for *C. abrae* is Iron Range, with the holotype being 'the largest specimen from the type locality in the Queensland Museum collection'.

Cyrtodactylus abrae was distinguished from *C. tuberculatus* by a number of pattern differences and the way the tail is held 'when at rest'. In *C. abrae* there are 4 bands on the body and 7 rings on the tail (vs. 6 bands, 13 rings in *C. tuberculatus*). It has pale-edged body bands that fade out before reaching the ventrolateral surface of the body (vs. dark-edged, extending down sides of body). Further differences include degree of mottling on head and limbs (uniform colouration in *C. abrae* vs. mottled) and tail posture when resting (horizontal curve in *C. abrae* vs. vertical).

In searching the Queensland Museum's collection to identify the type specimen of *C. abrae*, no specimens from Iron Range were found. The existence of a 'lowland tropical rainforest' form of *C. louisiadensis* that holds its tail in a horizontal curve is highly dubious. The Australian Museum has no *Cyrtodactylus* specimens from Iron Range, nor do there appear to be any field observations from this locality (K. McDonald and D. Storch, Queensland EPA; L. Leung, University of Queensland, Gatton, pers. comm.).

The form recognised by Wells & Wellington (1983, 1985) as *C. tuberculatus* (Lucas & Frost, 1900) may prove to be valid when a thorough revision of *C. louisiadensis* is undertaken. (Already large differences in the number of preanal and femoral pores between males from Australia and the Solomon Islands have been reported. Brown & Parker (1973) reported a range of 38-80 for the species but noted 'this wide range may reflect populations differences, since in our small sample those with the lowest number of pores were from Australia and those with the largest number from the Solomon Islands'.) Specimens have been examined from all Australian '*C. louisiadensis*' localities represented in the holdings of the Queensland and Australian Museums. None of these fully match the diagnosis of *C. abrae*, but are generally consistent with that of *C. tuberculatus* provided by Wells (2002). Included in this material are individuals from the rainforests of the McIlwraith Range and north of the Pascoe River mouth, both localities being within the stated range of *C. abrae*.

How did this error occur? The first published mention of a 'rainforest form' for *C. louisiadensis* appeared in Wilson & Knowles (1988). These authors presented diagnostic features to distinguish rainforest populations from what they termed the 'common form'. The features presented by these authors were perpetuated by Wells (2002) with slight rewording (Wilson & Knowles referred to the tail as 'prehensile'). Wilson & Knowles based their recognition of the 'rainforest form' on

a single published photograph (Wilson pers. comm.). This appeared in Cogger (1975, pl. 67) captioned as 'Cape York Peninsula'. This photograph was replaced by an image of a specimen from the Atherton Tableland (Cogger, 1992: 210). The Cogger (1975) specimen had been borrowed from a private collection by the late Peter Rankin and was photographed in the Herpetology Section at the Australian Museum. Rankin had been told that his specimen was from Cape York (H. Cogger, pers. comm. to GS), but both he and Cogger had their doubts, suspecting that it may have originated from New Guinea. At the time, neither knew enough about Australian populations of the taxon to be confident of the specimen's provenance.

How Wilson & Knowles (1988) concluded that the 'Rainforest form is poorly documented; recorded from Iron Range.' cannot be determined (S. Wilson, pers. comm. to GS). However, the perpetuation of this error by Wells (2002) clearly illustrates the value of ICZN recommendation 73B: 'An author should designate as holotype a specimen actually studied by him or her, not a specimen known to the author only from descriptions or illustrations in the literature.' (ICZN, 1999). Although available evidence strongly suggests that the description of *C. abrae* is based on a published photograph, the type description makes no explicit mention that this was the case. The photograph therefore has no type status (ICZN, 1999, Article 73.1.4). The International Code of Zoological Nomenclature states that a new species name published after 1999 requires a nominated type specimen — if no type exists, then the name is invalid (ICZN, 1999, Article 16.4). The type nominated by Wells (2002), 'largest specimen from the type locality in the Queensland Museum collection', does not exist as there are no specimens from Iron Range in the Queensland Museum. Therefore *Cyrtodactylus abrae* Wells 2002 is a *nomen nudum* and has no status in zoological nomenclature.

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